REMARKS

Claims 2-4, 6-9, 11-15, 17-19, 22-24 and 26-33 are pending in this application. Claims 18, 19, 22, 24 and 29 are amended. Claim 24 is amended to maintain consistency with amended independent claim 22.

No new matter is added to the application by this Amendment. Support for the language added to claims 18, 19, 22 and 29 can be found within the specification at, for example, the first full paragraph on page 17, the fourth and fifth full paragraphs on page 24 and the seventh full paragraph on page 41.

Reconsideration of the application is respectfully requested.

I.   Rejection Under 35 U.S.C. §102

Claims 2-4, 6-9, 11-15, 17-19 and 22-32 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by WO 94/01826 to Brown et al. (hereinafter "Brown"). The rejection is respectfully traversed.

The Patent Office alleges that Brown teaches each of the features recited in claims 2-4, 6-9, 11-15, 17-19 and 22-32. The Patent Office also alleges that Brown discloses a first simulation of a work center order and a modification of the first work center order to generate adjusted second demand quantity orders wherein the orders would be matched by taking the modified orders to generate actual orders. The Patent Office cites to page 16, lines 1 to 10 and figure 8 of Brown as allegedly teaching the step of generating updated demand quantities for a predefined second forecast time period by evaluating the adjusted demand quantities for the first period and at least one of the approved firm order allocations, the approved modular allocations and simulated

buyer orders newly received by dealers (see page 7 of the Office Action). Applicants respectfully disagree with these allegations.

Page 16, lines 1 to 10 and figure 8 of Brown do not teach or suggest the step of generating updated demand quantities for a predefined second forecast time period by evaluating the adjusted demand quantities for the first period and at least one of the approved firm order allocations, the approved modular allocations and simulated buyer orders newly received by dealers, as alleged by the Patent Office. At best, page 16, lines 1 to 10 and figure 8 of Brown may correspond to a step of (1) automatically adjusting, through use of a computer program installed on a data processing device, the demand quantities with predefined datasets representative of at least one of manufacturing capacities and supplier capacities, and determining at least one of approved firm order allocations and approved modular allocations or (2) adjusting the updated demand quantities with respect to restrictions of at least one of production sites and suppliers, and automatically allocating at least a portion of the adjusted, updated demand quantities to the production sites. These presently claimed steps define that the demand quantities are automatically adjusted with predefined datasets representative of at least one of manufacturing <u>capacities</u> and supplier <u>capacities</u>.

Such an adjustment according to Brown is accomplished by a planner, who relieves an overload by amending parameters such as due date or capacity. However, this adjustment only concerns a first forecast period of the invention. Nowhere does Brown teach or suggest a step of generating an updated demand quantity for a second forecast period as required in claims 18, 19, 22 and 29.

The planner according to Brown operates on given first order data. The planner modifies due date, capacity itself, schedule receipt of inventory parts or firm planned orders. The first order data remains unchanged with respect to the volume of ordered finished goods. The planner changes _time_ schedules (see page 10, lines 17 to 27 and page 16, lines 1 to 10 of Brown). In Brown, orders remain fix but features may be changed, which are manipulable by the enterprise itself.

Brown also discloses that such an adjustment by the planner may be done repeatedly and that different simulations are executed on the same order. Nowhere does Brown incorporate newly received orders in the planning process as required in the step of generating updated demand quantities for a predefined second time period by evaluating the adjusted demand quantities for the first period and at least one of the approved firm order allocations, the approved modular allocations and simulated buyer orders newly received by dealers as recited in claims 18, 19, 22 and 29.

Brown also fails to teach or suggest the step of matching of the adjusted, updated demand quantities with at least one of an actual customer order of a finished product and an actual dealer specification of a finished product, wherein the at least one of the actual customer order and the actual dealer specification is assigned to a matching, adjusted, updated demand quantity not yet assigned to an actual customer order or an actual dealer specification, wherein the matching, adjusted, updated demand quantity assigned to the actual customer order of the finished product is converted into an individual order which completely specifies the finished product as recited in claims 18, 19, 22 and 29. Moreover, Brown fails to teach or suggest the steps of generating customized order data representative of at least the adjusted, updated

demand quantities assigned to the at least one actual customer order and actual dealer specification and outputting the customized order data to the production sites as required in claims 18, 19, 22 and 29.

The claimed simulation includes both an adjusted, updated demand quantity which is already designed to the actual (real) customer order of the finished product and an adjusted, updated demand quantity which is not yet designed to an actual (real) customer order. A new actual customer order of a finished product is incorporated in the production process by assigning the new actual customer order of the finished product to a previously generated order. In the claimed simulation, <u>no new simulation for actual (real) customer orders</u> of finished products assigned to generated orders is necessary because the production process has already been simulated for the generated order.

The claimed simulation simulates estimated demand quantity without an actual customer order (with two forecast periods) and assigns an actual customer order of a finished product to the estimated demand quantity shortly before assembly begins (see the first full paragraph on page 17 of the present specification). In other words, a simulation is performed for two time periods and is based upon predicted orders, and actual customer orders of a finished product or actual dealer specifications of a finished product are incorporated into the actual production process only at a very late stage of the production process.

In the Office Action, the Patent Office alleges element 310.1 in FIG. 3 of Brown discloses that orders are matched by taking the modified order to generate actual orders. FIG. 3 of Brown merely describes how orders are exploded to determine which

subsequent orders (for example for materials M1, M2) are necessary to execute the orders for finished goods F1 and F2. In other words, FIG. 3 of Brown describes that M1 and M2 are materials which are necessary for producing the finished goods F1 and F2 and must be subsequently order to complete the orders for finished goods F1 and F2.

At best, FIG. 3 of Brown may correspond to the step of automatically adjusting the demand quantities with predefined datasets representative of at least one of manufacturing capacities and supplier capacities or the step of adjusting the updated demand quantities with respect to restrictions of at least one of production sites and suppliers. However, Brown fails to teach or suggest the step of matching the adjusted, updated demand quantities with at least one of an actual customer order of a finished product and an actual dealer specification of a finished product, wherein the at least one of the actual customer order and the actual dealer specification is assigned to a matching, adjusted, updated demand quantity not yet assigned to an actual customer order or an actual dealer specification, wherein the matching, adjusted, updated demand quantity assigned to the actual customer order of the finished product is converted into an individual order which completely specifies the finished product as required in claims 18, 19, 22 and 29.

Thus, in contrast to the method according to Brown, the present invention proposes using probable placeholders for expected real orders and incorporating new orders into the order processing process. The incorporation of the new orders into the order processing process is advantageous because a vehicle, which is still in the order allocation stage, may be allocated to a real customer at a late term such that the delivery time of the vehicle to the real customer is greatly reduced. Such an advantage

can not be realized according to the teachings of Brown because Brown does not match customer orders for finished goods with actual customer orders to generate customized order data which are transferred to the production sites as required in claims 18, 19, 22 and 29.

Because the features of independent claims 18, 19, 22 and 27 are neither taught nor suggested by Brown, Brown cannot anticipate, and would not have rendered obvious, the features specifically defined in claims 18, 19, 22 and 27 and their dependent claims.

For at least these reasons, claims 2-4, 6-9, 11-15, 17-19 and 22-32 are patentably distinct from and/or non-obvious in view of Brown. Reconsideration and withdrawal of the rejections of the claims under 35 U.S.C. §102(b) are respectfully requested.

II.   Rejection Under 35 U.S.C. §103

Claims 2-4, 6-9, 11-15, 17-19, 22-24 and 26-33 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Brown in view of "Simulation of Order Fulfillment in Divergent Assembly Supply Chains" (hereinafter "Strader"). The rejection is respectfully traversed.

Strader does not remedy the deficiencies of Brown as described above with respect to the rejection under 35 U.S.C. §102.

The Patent Office acknowledges that Brown fails to teach that the material, or product, can be available in a plurality of versions with a plurality of selectable features (see page 3 of the Office Action). The Patent Office introduces Strader as allegedly disclosing the concept of customizable products, and the "make-to-order" strategy. The

Patent Office alleges that the subject matter of claims 2-4, 6-9, 11-15, 17-19, 22-24 and 26-33 reads on the teachings of Brown and Strader. Applicants respectfully disagree.

Strader discloses that customizing is not applied to automobiles and that lean production is convenient to automobiles (see section 4.8 on page 9 and Table 2 on page 8 of Strader). Specifically, Strader discloses "that automobile and aerospace industries are associated with Type I SCNs, where how to efficiently meet customer demand without carrying excessive inventory, and how to coordinate suppliers and assemblers to smooth material flow, are two main issues and challenges" (see section 4.8 on page 9 of Strader).

Neither Brown nor Strader, taken singly or in combination, teaches or suggests the step of generating updated demand quantities for a predefined second forecast time period by evaluating the adjusted demand quantities for the first period and at least one of the approved firm order allocations, the approved modular allocations and simulated buyer orders newly received by dealers as required in claims 18, 19, 22 and 29. Further, neither Brown nor Strader, taken singly or in combination, teaches or suggests the step of matching the adjusted, updated demand quantities with at least one of an actual customer order of a finished product and an actual dealer specification of a finished product, wherein the at least one of the actual customer order and the actual dealer specification is assigned to a matching, adjusted, updated demand quantity not yet assigned to an actual customer order or an actual dealer specification, wherein the matching, adjusted, updated demand quantity assigned to the actual customer order of the finished product is converted into an individual order which completely specifies the finished product as required in claims 18, 19, 22 and 29. Moreover, neither Brown nor

Strader, taken singly or in combination, teaches or suggests the steps of generating customized order data representative of at least the adjusted, updated demand quantities assigned to the at least one actual customer order and actual dealer specification and outputting the customized order data to the production sites as required by claims 18, 19, 22 and 29.

Thus, Applicants submit that the claimed computer program product, computer-readable storage medium, method for simulating order processing processes and simulation system would not have been obvious to one of ordinary skill in the art in view of the teachings of Brown and Strader, taken singly or in combination.

Accordingly, reconsideration and withdrawal of the rejection of claims 2-4, 6-9, 11-15, 17-19, 22-24 under 35 U.S.C. §103(a) are respectfully requested.

III.   Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 2-4, 6-9, 11-15, 17-19, 22-24 and 26-33 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Early and favorable action is earnestly solicited.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicant respectfully requests that this be considered a petition therefor. The

Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

Respectfully submitted,

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By _____

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